

Appln No. 10/718,478
Amdt date September 20, 2010
Reply to Office action of August 24, 2010

REMARKS/ARGUMENTS

As a preliminary matter, Applicant would like to thank the Examiner for taking the time to conduct an interview with Applicant's representative on September 1, 2010. During that interview, the Examiner stated that he was unable to find a definition of "alkenyl" over the internet, and that he relied on the definition of "alkene" as acyclic in drafting the August 24, 2010 Notice of Non-compliant Amendment. Although the Examiner argued that butadiene sulfone is not an alkene within the definition provided, Applicant pointed out that the elected species was a sulfone compound having alkenyl functional groups, and not alkenes. Applicant directed the Examiner's attention to a Sigma-Aldrich webpage listing a number of alkenyl functional groups which are cyclic (e.g., cyclopropene, cyclobutene, cyclopentene, cyclohexene, cycloheptene, and cyclopentadiene).¹ Applicant also directed the Examiner's attention to a Wikipedia page describing the formation of butadiene sulfone as the reaction of butadiene (an alkene) and sulfur dioxide. While Applicant and the Examiner did not agree on the classification of butadiene sulfone as an alkenyl functional sulfone based compound, Applicant and the Examiner did agree that if amended to include C₃ to C₄ alkenyl sulfones in the list of compounds for the sulfone based compound, the claims would read on the elected species.

In response to the Notice of Non-Compliant Amendment dated August 24, 2010, Applicant has amended independent claims 1 and 9 to include C₃ to C₄ alkenyl sulfones in the list of sulfone based compounds. Similarly, Applicant has amended claims 11, 14, 15 and 18 to recite that R and R' can be selected from C₃ to C₄ alkenyl groups. These amendments find full support in the original specification, claims and drawings, at least at page 5, lines 16-29 (listing alkenyl groups, and preferably C₂ to C₄ alkenyl groups as potential substituents for R and R'). Applicant notes that the disclosure of C₂ to C₄ alkenyl groups in the specification represents only three potential substituents, i.e., C₂, C₃ and C₄ alkenyl groups. As the present specification provides the structure for the sulfone based compound (i.e., Formula 1), and defines the R and R' groups as potentially including C₂, C₃ or C₄ alkenyl groups, those of ordinary skill in the art

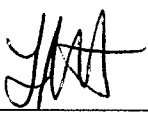
¹ Applicant also notes that while the Examiner's definition of "alkene" appears to require an acyclic structure, a simple search for "cycloalkene" turned up over 50,000 hits, including a Wikipedia page defining cycloalkenes as a type of alkene. In addition, the IUPAC gold book (from which the Examiner took his definition of "alkene") also includes reference to cycloalkenes.

Appln No. 10/718,478
Amdt date September 20, 2010
Reply to Office action of August 24, 2010

would readily recognize the resulting chemical formulae for C₃ and C₄ alkenyl functional sulfones satisfying Formula 1. As such, Applicant submits that the recitation in amended claims 1 and 9 of C₃ and C₄ alkenyl functional sulfones and the recitation in amended claims 11, 14, 15 and 18 of C₃ and C₄ alkenyl groups is fully supported by the original specification, claims and drawings. In particular, as the specification provides the structure of the compounds (Formula 1) and clearly discloses C₂ to C₄ alkenyl groups as potential substituents for R and R', and as those of ordinary skill in the art would readily understand the chemical formulae resulting from the use of C₃ and C₄ alkenyl groups in the R and R' positions in Formula 1, amended claims 1, 9, 11, 14, 15 and 18 satisfy both the enablement and written description requirements.

Claims 1-12, 14-16 and 18 remain pending in this application, with claims 5-7, 9, 12, 14, 16 and 18 withdrawn from consideration. By this amendment, Applicant has amended claims 1, 11 and 15 to place the claims in condition for allowance, and amended withdrawn claims 9, 14 and 18 to include all of the features of allowable elected claim 1, 11 or 15. The amendments find full support in the original specification, claims and drawings, and no new matter is presented. In view of the above amendments and remarks, Applicant submits that all of pending claims 1-4, 8, 10, 11 and 15 are in condition for allowance. Applicant therefore respectfully requests reconsideration and a timely indication of allowance. As Applicant has amended withdrawn claims to include all of the features of allowable elected independent claim 1, 11 or 15, Applicant also respectfully requests that withdrawn claims 5-7, 9, 12, 14, 16 and 18 be rejoined and allowed. However, if there are any remaining issues that can be addressed by telephone, Applicant invites the Examiner to contact Applicant's counsel at the number indicated below.

Respectfully submitted,
CHRISTIE, PARKER & HALE, LLP

By 

Lauren E. Schneider
Reg. No. 63,712
626/795-9900

LES/les

JR PAS917955.1-*09/17/10 7:24 PM